

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Federal-State Joint Board on	)	CC Docket No. 96-45
Universal Service	)	
	)	
1998 Biennial Regulatory Review—	)	CC Docket No. 98-171
Streamlined Contributor Reporting	)	
Requirements Associated with	)	
Administration of Telecommunications	)	
Relay Service, North American Numbering	)	
Plan, Local Number Portability, and	)	
Universal Service Support Mechanism	)	
	)	
Telecommunications Services for	)	CC Docket No. 90-571
Individuals With Hearing and Speech	)	
Disabilities, and the Americans with	)	
Disabilities Act of 1990	)	
	)	
Administration of the North American	)	CC Docket No. 92-237
Numbering Plan and North American	)	NSD File No. L-00-72
Numbering Plan Cost Recovery	)	
Contribution Factor and Fund Size	)	
	)	
Number Resource Optimization	)	CC Docket No. 99-200
	)	
Telephone Number Portability	)	CC Docket No. 95-116
	)	
Truth-in-Billing and Billing Format	)	CC Docket No. 98-170

**REPLY COMMENTS OF THE NATIONAL CABLE &  
TELECOMMUNICATIONS ASSOCIATION**

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April 18, 2003

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**REPLY COMMENTS OF THE NATIONAL CABLE &  
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The National Cable & Telecommunications Association (“NCTA”), by its attorneys, submits the following Reply Comments in response to comments filed on the Commission’s Second Further Notice of Proposed Rulemaking, FCC 02-329, in the above-captioned proceeding.

NCTA is the principal trade association of the cable industry in the United States. Its members provide cable television and broadband Internet access services throughout the United States. Cable companies and their affiliates provide telephony services in numerous jurisdictions.

### **INTRODUCTION AND SUMMARY**

Cable companies are principally in the business of providing video programming and broadband Internet access to residential subscribers. The delivery of video programming and broadband Internet access are expected to remain the primary businesses of cable companies for years to come. In recent years, cable companies have been increasingly active in the provision of circuit-switched residential telephone service. Cable companies serve more than 2.5 million residential telephone customers.

Cox began offering telephone service through its telecom affiliates within its cable service areas in the mid-1990's. Today it is one of the largest providers of residential telephone service in the United States, with more than 718,000 customers. Comcast, primarily through its acquisition of AT&T's cable systems, is currently serving more than 1.4 million residential telephone customers. Insight Communications provides telephone service to 30,000 residential customers. Cablevision provides telephone service to 12,000 customers in New York.

These cable companies offer residential telephone services today on a circuit-switched basis. Cable companies are also in the process of exploring the provision of Voice over Internet Protocol ("VoIP") telephony. Cablevision is providing VoIP in selected areas in New York. Cox is actively pursuing trials of VoIP technology. Time Warner Cable has launched a VoIP service in Portland, Maine. Comcast has commenced a VoIP technical trial in Coatesville, Pennsylvania, a suburb of Philadelphia. Other cable companies are also evaluating the technical,

operational and marketplace viability of utilizing cable plant to provide residential VoIP telephony services. CableLabs, the cable industry's research and development consortium, is working with its member cable companies to develop the necessary technical and operational standards for the delivery of VoIP telephony by cable systems.

Cable companies contribute to the interstate Universal Service Fund ("USF") when they offer telephone services and have always supported the goals and purposes of the Commission's USF policies. In the Second Further Notice, the Commission concludes it is appropriate to further develop the record on aspects of proposals to base USF contributions on the number and capacity of connections because the existing revenue-based mechanism for collecting USF funds may not be sustainable over the long term. The agency seeks comment on three "connection-based" alternatives for assessing and collecting USF funds over the long term.

The FCC should not rush to a decision in this proceeding. Because of the potential impact of a change in the structure of the funding mechanism, especially among competitive services, the Commission should move carefully and deliberately in considering changes.

NCTA has reviewed the proposals offered in the Notice. We believe that a capacity-based proposal on switched services would be difficult to implement consistent with the statutory requirement of "equitable and non-discriminatory" USF treatment. NCTA is inclined to support the eventual replacement of the existing revenue-based mechanism with a USF collection scheme based on telephone numbers, with certain modifications to the number-based scheme proposed in the Second Further Notice. A properly-structured interstate USF contribution mechanism based on telephone numbers will satisfy the statutory requirements of an "equitable and nondiscriminatory" funding mechanism that provides "specific, predictable and sufficient" funding over the long run.

Under such a properly-structured proposal:

- If and when some types of IP telephony are deemed subject to USF assessment, then they will make the same contribution to the interstate USF as circuit switched telephony;
- Business telephone numbers should be assessed twice the interstate USF charge as residential telephone numbers;
- The interstate USF contribution charge should be borne equally by the interstate access and switched transport components; and
- The interstate USF contribution charge should be assessed to the company whose end-user customer is actively using that number.

This approach will provide key elements of a revised interstate USF contribution system.

**I. A “TELEPHONE NUMBER-BASED” CONTRIBUTION SYSTEM, IF PROPERLY STRUCTURED, MAY BE A REASONABLE AND SUSTAINABLE FUNDING SOURCE**

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NCTA agrees with Qwest Communications International Inc. (“Qwest”) that the Commission need not rush to a conclusion on the funding mechanism for the federal USF.<sup>1</sup> The interim changes adopted in the Report and Order should ameliorate the Commission’s immediate funding concerns. Changing the funding structure from revenue-based funding to connections-based funding may have a significant impact on some customers, and the Commission should proceed cautiously to adopt such changes. Although the FCC staff study does attempt to set forth the average impact on various industry and customer groups, numerous parties have offered variations on each of the three proposals discussed (as does NCTA here), and the Commission should only issue a final decision adopting a particular approach after its impact is better understood.

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<sup>1</sup> See Comments of Qwest Communications International Inc., Feb. 28, 2003, at 2.

An interstate USF funding scheme for switched services based on telephone numbers, as structured herein, is most likely to achieve the Commission’s long-term goal of a workable and sustainable universal service funding mechanism. In contrast to the existing revenue-based scheme, a properly-structured telephone number-based contribution mechanism is likely to be viable and sustainable for the long run. It will also be consistent with the statutory objectives of Section 254 of the Act, which call for the creation and maintenance of a contribution scheme that is “equitable and nondiscriminatory,” and a support mechanism that is “specific, predictable and sufficient” to support the objectives of preserving and advancing universal service.

**A. A Properly Structured Number-Based Funding Mechanism Will Be Equitable and Nondiscriminatory**

In contrast to the revenue-based process, the telephone number-based option, if properly structured and implemented, holds out the prospect of providing an equitable and nondiscriminatory funding mechanism for universal service over the long term. It will achieve this objective by imposing equitable contribution obligations upon all end-users of switched telephone service, irrespective of the particular service, the means of delivering the services, or the provider of the service. Under this recommended approach, providers of wireline, wireless and paging services, all of which utilize telephone numbers on an identical basis, will make contributions to the interstate USF for each telephone number.

Adoption of this telephone number-based proposal will substantially reduce the risk of discrimination in favor of particular telecommunications service providers. The wireless “safe harbor,” which some contend significantly understates actual interstate revenue and therefore a proper interstate USF contribution, will be replaced by a telephone number-based charge that imposes an equivalent assessment on connections associated with telephone numbers. Similarly, service providers will no longer be able to take advantage of service offerings that effectively

circumvent the contribution scheme. If a mechanism based on telephone numbers is adopted, the opportunities available to service providers and end-users to take advantage of discriminatory arrangements will be substantially reduced or eliminated.

**B. A Properly Structured Number-Based Funding Mechanism Will Be  
“Specific, Predictable and Sufficient”**

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A properly-structured telephone number-based contribution scheme is more likely than the existing revenue-based scheme to satisfy the statutory requirement for an interstate USF funding mechanism that is “specific, predictable and sufficient ... to preserve and advance universal service.”<sup>2</sup>

In contrast to the revenue-based mechanism, a properly-structured system relying on telephone numbers can provide a reliable long-term funding mechanism. Telephone numbers are employed by all end-users of switched services in essentially the same way. Since an end-user’s telephone number is specifically assigned to and associated with that particular end-user, it will be possible to associate the number or numbers assigned to each end-user with the level of contribution owed by each end-user. By determining the overall amount of revenues needed to fund the USF, and then dividing that amount by the total telephone numbers, taking into account an appropriate differential for business and residential numbers, the per-switched telephone number contribution can be determined. (This arrangement assumes that the contribution by non-switched services will recover an appropriate portion of the total interstate USF funding requirement.)

A number-based contribution system will also satisfy the statutory requirement of predictability. AT&T points out: “As service providers develop more and more devices that need to be uniquely addressed with the capability of being reached by any other device on the



PSTN, more numbers will be needed. Moreover, as companies have developed products such as e-fax, demand for numbers has continued to grow. As numbers grow, a numbers-based mechanism reduces automatically the amount of contribution that must be collected for each assigned number.”<sup>3</sup>

Moreover, as WorldCom points out, “an interstate connections-based assessment is much more difficult to avoid”<sup>4</sup> than a revenue-based system. WorldCom further explains that, “[b]ecause the number of interstate connections is growing, rather than shrinking, the amount of the per connection USF assessment rates will increase only if the rate of growth for the fund exceeds the rate of growth for connections.”<sup>5</sup> The available evidence demonstrates that connections are growing at a rate that exceeds the rate of the growth of the fund.<sup>6</sup> WorldCom notes that the Bush Administration’s Fiscal Year 2004 budget estimates USF funding will grow from \$5.1 billion in FY2002 to \$7.1 billion in FY2008, or about six per cent per year. Connections are growing at a significantly greater rate.<sup>7</sup> Telephone numbers assigned to end-users should, in some proportion, grow at a similar rate. It follows that “the connections-based mechanism results in a much more stable assessment base than a revenue-based system.”<sup>8</sup> A more stable assessment base leads to a more predictable fund.

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<sup>2</sup> 47 U.S.C. § 254 (b)(5).

<sup>3</sup> Comments of AT&T Corp., Feb. 28, 2003 at 29.

<sup>4</sup> Comments of WorldCom, Feb. 28, 2003 at 20.

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

**C. A Number-Based System Implemented By the Commission Should Be Consistent With the Goals of Marketplace and Operational Efficiency**

The Second Further Notice also seeks comment on several issues whose resolution is central to the determination of the way in which a number-based contribution system will actually operate. These issues include whether (1) IP telephony should contribute on the same basis as circuit switched telephone services; (2) residential and business connections should be assessed the same contribution charge, or if a proportionately greater charge should be imposed on business numbers to take account of the relatively greater use of the connection by the business customer and of the connection's relatively greater value to the business customer; (3) the interstate USF contribution charge should be borne equally by the interstate access and switched transport components; and (4) if a telephone number-based system is used, the contribution charge should be assessed to the company whose end-user customer is actively using the number. The proper resolution of the issues is vital to the efficient functioning of a revised interstate USF contribution scheme.

**1. If and When Some Types of IP Telephony are Deemed Subject to USF Assessment, Then They Should Not Make a Disproportionately Higher Contribution to the Interstate USF Than Circuit Switched Telephony**

There are various types of telephony offerings using some form of Internet protocol, referred to here broadly as IP telephony. In this regard, the Commission inquires whether

“certain telephone numbers associated with specific types of services ... should be treated differently.”<sup>9</sup>

IP telephony is in the early stages of development. It is uncertain when IP telephony will achieve the status of a viable commercial service. When it does, the appropriate regulatory treatment will be clearer. Further, the definition of IP telephony is broad: there are many varieties of IP telephony, some of which may be designated for contribution to the interstate USF, and some of which may not be so designated. In any event, if some providers of IP telephony are eventually deemed to be subject to USF assessment, their contribution level should not be disproportionately higher than other contributors to the fund. But until the definitions, operational conditions and market role of IP telephony is better understood, the Commission should defer final action on whether providers of any type of IP telephony should contribute to the interstate USF.

## **2. Businesses Telephone Numbers Should Be Assessed Twice the Interstate USF Charge as Residential Telephone Numbers**

While NCTA could support the eventual implementation of a properly-structured number-based interstate USF contribution system, we are concerned that, unless some account is taken of the relatively greater costs imposed on the Public Switched Telephone Network (“PSTN”) by business connections, a shift to a telephone number-based USF contribution system will disproportionately disadvantage residential customers. Telecommunications networks are designed and built to address peak capacity demands. The peak user, then, causes substantially greater costs than the off-peak user. Business users unquestionably are peak users, as the peak periods occur during the business day (generally in mid-morning and towards the end of the

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<sup>9</sup> Federal-State Joint Board on Universal Service, Report and Order and Second Further Notice of Proposed Rulemaking, CC Docket No. 96-45, rel. Dec. 13, 2002, at ¶ 97 (“Second Further Notice”).

business day). Residential usage, in contrast, occurs largely outside the peak periods. Because business services cause greater costs to be incurred in building telecommunications networks, business services should be required to make a similarly greater contribution to USF.

Even though a uniform rate for residential and business connections offers administrative simplicity, this appeal cannot overcome substantive disadvantages to residential customers. As providers of competitive telephone services primarily to residential customers in a still evolving marketplace, cable companies are particularly concerned that the replacement of a revenue-based contribution system intended to provide a more secure funding base for universal service not result in the unintended consequence of disadvantaging residential customers. A “flash cut” switch from the current system to a telephone number-based system, without any readjustment between business and residential switched services, could create serious “rate shock” for some residential households. Allocating the contribution charge between business and residential customers on some more economically efficient and equitable basis, such as charging business customers’ numbers for two units to one unit for residential numbers, would foster the goals of Section 254 of the Act.

**3.     The Interstate USF Contribution Charge Should Be Borne Equally By the Interstate Access and Switched Transport Components**

A properly-structured telephone number-based system would contemplate an equal division of the contribution charge associated with each telephone number between the entity that offers interstate access and the provider of switched transport. Such an approach would adopt a key component of the Commission’s second connection-based option – a split of contribution charges between interstate access and switched transport – and apply it to the telephone numbers-based alternative. Under such a system, the per end-user contribution charge associated with each telephone number would be divided into two units per connection.

Companies that provide both components will be assessed two units per connection, while companies that provide only interstate access or switched transport will be assessed one unit. As a practical matter, some service providers will offer both components, while others will offer only one.

This proposal, in contrast to a number-based approach that does not split the contribution responsibility between interstate access and switched transport, is consistent with the requirement of Section 254 (d) of the Act, which directs that “[e]very telecommunications carrier that provides interstate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service.”<sup>10</sup> Without this modification to the numbers-based proposal described in the Second Further Notice, there is a significant risk that a company providing one only component (e.g., interstate access) will be responsible for both components of the interstate contribution charge, while providers of the other component (i.e., switched transport) will have no responsibility for the contribution charge. Such an arrangement might run afoul of the statutory requirement that every telecommunications carrier that provides interstate telecommunications services contribute.

Therefore, the interstate USF contribution charge should be recovered in equal units between the providers of interstate access and switched transport. This approach will have the benefit of administrative simplicity because all switched access connections require the use of telephone numbers, and each interstate connection includes switched access and interstate transport components.

**4. If a Telephone Number-Based Assessment Scheme is Used, the Interstate USF Contribution Charge Should be Assessed to the**

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<sup>10</sup> 47 U.S.C. § 254 (d) (emphasis supplied).

### **Company Whose End-User Customer is Actively Using that Number**

The Second Further Notice inquires whether the entity upon whom the contribution charge is assessed should be the company porting and actually using the number, or the company to whom the number was originally assigned. NCTA strongly supports the recovery of the contribution charge by the company that actually uses the number.

First, a numbers-based interstate USF should be based on “Assigned” telephone numbers as defined by the Commission – telephone numbers assigned to end-users. It should not include allocated numbers (a company’s reportable number inventory), and should not include administrative numbers. Further, it should be based on the assigned numbers used by each carrier, including those ported in from another carrier, and excluding those ported out to another carrier.

If the interstate USF contribution charge is assessed on the basis of “Assigned Numbers” without accounting for numbers ported in or out, rather than numbers actually used by a service provider, it will be necessary to establish a system of payments between companies that either port in or port out numbers. Even though most telephone numbers used by competitive telephony customers are ported in from an ILEC, the administrative burden associated with inter-company billing, being billed, and auditing the ported in and ported out numbers between carriers could be significant. Assessing the contribution charge to the company actually using a number is the preferable course.

## **II. CONTRIBUTION SCHEMES WHICH TIE PER-CONNECTION CHARGES FOR SWITCHED SERVICES TO INCREASED BANDWIDTH USAGE RAISE SIGNIFICANT CONCERNS**

The record in this proceeding demonstrates that a revenue-based system will not be sustainable in the long run. Of the three connection-based proposals described in the Second

Further Notice, only the third option, in which the interstate USF contribution for switched services does not vary despite the amount of bandwidth utilized, is most likely to achieve the goals of the Commission in this proceeding. The alternative proposals, in which the contribution charge increases with increased bandwidth usage, do not take account of newer system architectures such as the system architecture deployed by cable systems.

Under the first bandwidth-based option, all providers of interstate telecommunications services, except for providers of paging services which are assessed at a reduced rate, will make a minimum monthly contribution of \$1.00 for each connection to the interstate USF. Multi-line business connections will be assessed greater charges, with actual contribution levels determined based upon the different tiers of capacity into which they fall. The total of connection charges assessed to multi-line business connections will be set at levels that satisfy the residual contribution requirements of the interstate USF.

The second bandwidth-based option would divide the responsibility for the interstate USF charge equally between the provider of interstate access and the provider of switched transport. (Under this option, if the same company provides both components, it will bear sole responsibility for the charge.) Under this proposal, the assessment for each of the two components of the contribution charge for switched connections would increase in relation to the amount of bandwidth capacity utilized, irrespective of the service actually provided.

The Commission should not adopt either of these proposals. Under these proposals, the interstate USF contribution will increase commensurate with bandwidth. But the reliance on bandwidth tier levels is not the most efficient or reliable way to assess a contribution charge on switched connections. As AT&T states in its comments, the numbers-based approach is “vastly simpler” than the proposed alternatives, because “it requires no equivalency ratios between

Centrex and PBX services, and no elaborate justifications for disparate treatment of multiline business versus single-line residential versus one-way paging versus two-way paging versus subscribed non-paging CMRS versus prepaid non-paging CMRS connections.”<sup>11</sup>

Moreover, if “bursty” bandwidth is utilized to provide service, service providers will face significant operational challenges. It is unclear, for example, whether under this proposal the contribution should be based on the maximum bandwidth of the connection or the actual bandwidth utilized. If the connection is measured on the basis of actual bandwidth, it is uncertain over what time period the bandwidth measurement is to be calculated. The telephone numbers-based proposal, by assessing the same interstate USF contribution charge on all telephone numbers used to provide switched services, will provide the most effective mechanism, consistent with statutory requirements, for collecting the interstate USF contribution for switched services.

### **CONCLUSION**

Over the long term, a properly-structured contribution system that assesses connections on the basis of telephone numbers appears to best meet the Commission’s goals. Under this arrangement, if and when some types of IP telephony are deemed subject to the interstate USF, these types of IP telephony services would not make a disproportionately higher contribution to the interstate USF than circuit switched telephony. Business telephone numbers would be assessed at a higher rate, such as twice the rate of residential numbers. The interstate USF contribution charge should be borne equally by the interstate access and switched transport components. And, the interstate USF contribution charge should be assessed to the company whose end-user customer is actively using that number. This approach, more than the other

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<sup>11</sup> Comments of AT&T Corp., Feb. 28, 2003, at iv.



arrangements under consideration, is likely to achieve the statute's interstate universal telephone service goals.

Respectfully submitted,

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